

XXIII. *Monograph on Mimela, a Genus of Coleopterous Insects.* By the Rev. F. W. HOPE, F.R.S., &c.

[Read September 1, 1834.]

LAMELLICORNES.

Fam. RUTELIDÆ.

MIMELA, Kirby.

Character Essentialis.

MANDIBULÆ dorso rotundatæ, apice compressæ, bidentatæ; dente inferiori truncato. *Antennæ* novem articulatæ.

Character Artificialis.

Labium urceolatum, emarginatum.

Maxillæ apice sex-dentatæ, nempe 3, 2, 1.

Mandibulæ dorso rotundatæ, apice compressæ bidentatæ; dente inferiori truncato.

Labrum brevissimum, transversum, medio depresso-excavatum, vel emarginatum.

Antennæ novem articulatæ.

Podex tectus.

Character Naturalis.

Corpus ex oblongo obovatum, convexum, glabrum, alatum. *Caput* ex triangulari subrotundum, declive. *Labrum* transversum, brevissimum, medio depressum, utrinque antice barbatum, verticale. *Mandibulæ* basi subtriquetro-trigonæ, intus orbiculatæ, transversim sulcatæ, apice compressæ, incurvæ, bidentatæ; dente superiori obtuso, inferiori truncato subemarginato, dorso rotundato. *Maxillæ* validæ mandibulæformes, apice incurvæ sex dentatæ, dentibus nempe 3, 2, 1. *Palpi maxillares** in nostris specimenibus desunt. *Labium* infra apicem et apud basin constrictum unde quasi urceolatum, apice emarginatum. *Palpi labiales* triarticulati: articulo primo minutissimo, intermedio subarcuato crassiori; extimo ovato acuto. *Mentum* subquadratum. *Antennæ* novem-articulatæ: articulo primo magno apice incrassato, quasi dolabriformi; secundo brevi subturbinato; proximis tribus subcylindricis; sexto brevissimo fere pateræ-

* (4-articulati, articulis fere equalibus, ultimo paullo majori ovato, apice acuminato.—F. W. H.)

formi; tribus ultimis elongatis pilosis, clavam elongatam lineari-lanceolatam formantibus. *Oculi* subhemisphærici prominuli. *Septum* irregulare, a naso per tertiam fere partem oculi transcurrit. *Nasus* s. *clypeus* transversus, distinctus, antice rotundatus, marginatus: margine reflexo. *Rhinarium* verticale, brevissimum.

Truncus: *Thorax* transversus, s. longitudine latior, tenuissime marginatus, antice angustior; sinu magno ad recipiendum caput exciso, postice obsolete trilobus: lobo intermedio rotundato, supra ad latera, puncto ordinario impressus. *Prosternum* inter pedes anticos elevatum, compressum, apice dilatatum, oblique truncatum. *Mesosternum* lineare, inter pedes intermedios latitans. *Metasternum* basi et apice mucronatum: mucrone postico bifido. *Scutellum* triangulare.

Coleoptra oblonga, striata, striis duplicatis; podicem, excepto summo vertice, obtegentia. *Pedes* robusti: femoribus posticis incrassatis; tibiis anticis apice bidentatis: dente exteriori longiori obtuso; interiori brevi acuto; calcaribus 1. 2. 2. posticis obtusis; tarsorum unguiculis simplicibus* inflexis.

Abdomen convexum; segmentis ventralibus sex; primo brevissimo; ultimo depresso obtuso.

Probably no insect described by my much valued friend Mr. Kirby more strongly evinces his peculiar tact in establishing sound genera than the subject of the present monograph, viz. *Mimela*. From his own account in the 14th volume of the Linnæan Transactions, he purchased this insect with a lot of Brazilian species, and at first ranged it with *Areoda*, its general habit and aspect resembling a tropical American type: meeting, however, afterwards with several other specimens in a Chinese collection, he was induced to examine it more closely, and the result of these observations was embodied in his valuable paper in the Linnæan Transactions, in which he proves distinctly that many of the characters of *Mimela* appear as if borrowed from South American types, while its most essential ones approach nearer to *Euchlora*, the Asiatic type. Many entomologists would, therefore, have rested contented with arranging it along with *Euchlora*, as the French do at the present moment. Not so, however, Mr. Kirby; he immediately formed it into a sub-genus, and added the preceding ample characters.

The distinguishing characters of *Mimela* appear to be the shape

* (Mr. Kirby's specimens appear to have been destitute of the four anterior tarsi. They differ from the posterior pair, as described by Mr. Kirby, in having one of the claws on each of these four legs bifid.—F. W. H.)

of the insect as well as the presence of a prosternum : for a moment it may be worth while to look to the use of this latter member. It is probable that this attachment may serve to counteract the weight of the body, which is posteriorly much dilated ; or else, why in the allied genus *Euchlora* is this posterior dilatation wanting as well as the prosternum ? In some *Adephaga* we find it strongly developed, particularly in *Procrustes* and the larger *Carabidæ* ; and in several genera, where the abdomen is large in proportion to the thorax, we find the prosternum of a large size, particularly in *Dynastidæ*, and also in *Chiasognathus Grantii* and *Prionus Hayesii*. It would seem, however, that this is not always a sufficient support to counteract the weight of the body, or why do we find those hooks on the antennæ which support the latter insects when at rest ? It is probable also that the prosternum is of great use to all insects which are climbers, as we find it developed in *Calosoma*, *Hydrous*, &c. ; and, I think, in proportion as the mesosternum increases in size, there is less need of a prosternum, as in *Cetoniadæ* it altogether takes its place, and serves probably the same purpose. From an examination of the *Buprestidæ* we may partly arrive at the use intended by this member ; in the first section, viz. the exscutellati, containing the genus *Sternocera*, an example of which is *S. Chrysis*, Fab., the mesosternum is remarkably strong, projecting between the fore-arms : in this instance the anterior part of the insect is greatly dilated, while towards the apex it is greatly diminished, tapering off almost to a point. In *Catoxantha bicolor*, Fab., we find nearly the reverse of this ; the posterior part of the body is greatly dilated, and instead of the development of the mesosternum, we find only that of the prosternum, which descends deeply into the breast. In the Indian *Rutelidæ* this posterior dilation of the body is not always attended with a prosternum, as an insect subsequently described under the name of *Aprosterna*, closely allied to *Mimela* (as well as the genus *Rhombonyx*, Kirby,) both of which are without a prosternum. In my forthcoming monograph of *Euchlora* this subject, however, will be more fully detailed. At present it is time to say a few words on the geographical distribution of this genus.

Mimela appears widely dispersed over the continent of Asia, and eventually it will no doubt be discovered wherever *Euchlora* is found. I have not yet been able to ascertain its occurrence in Sumatra, Borneo, or Manilla, or even in New Guinea or the Isle of Timor ; and as the entomological character of the above countries appears to resemble that of continental India, I have little hesitation in saying, that we may ultimately expect several species from those quarters, possessing as I do several species of *Euchlora* from the above places.

The most southern range known at present appears to be the island of Java; from Singapore it may be traced up to the Himalaya. On the east its boundary is terminated probably by the Japan Isles, and on the west by Madras. I am doubtful, however, if it can be traced to Bombay, having repeatedly received numerous collections from that country, but never a single specimen of *Euchlora* or *Mimela*. According to Mr. Kirby, it is found also in the island of Ceylon. China evidently appears to be its metropolis; and judging from the immense numbers sent to this country, it must really there be quite a pest. When to the *Mimelæ*, emerging from the leafy coverts of the wood, we add the swarms of *Euchloræ*, and the hosts of booming Beetles, the dazzling *Lampyridæ*, or Fire Flies, with genera of various orders, the air must literally teem with the countless myriads of insect population, offering to the sight a picture which the warmest European imagination has not the power to conceive. These *Mimelæ* have their use as well as all other insects, and the office assigned them is probably to keep in check the over-luxuriance and superfluity of tropical vegetation.

GENUS MIMELA.

Type of the Genus, *Mimela Chinensis*, Kirby.

Section 1. With a Prosternum. (*Mimela* proprie sic dicta.)

	Patria.
Species 1. <i>Chinensis</i> , Kirby.....	China.
2. <i>Confucius</i> , Hope.....	Ditto.
3. <i>Blumei</i> , De Haan	Java.
4. <i>Lathamii</i> , Hope	China.
5. <i>Lucida</i> , De Haan	Japan.
6. <i>Splendens</i> , Hope.....	Nepal.
7. <i>Auronitens</i> , Hope	Ditto.
8. <i>Horsfieldii</i> , Hope	Ditto.
9. <i>Leei</i> , Swed. (<i>fastuosa</i> , Fab.).....	East Indies.
10. <i>Chrysoprasus</i> , Hope	
11. <i>Bicolor</i> , Hope.....	Nepal.
12. <i>Similis</i> , Hope.....	Ditto.

Section 2. Without a Prosternum (Aprosterna).

1. *Nigricans*, Kirby

1. MIMELA CHINENSIS, Kirby.

M. supra luteo-virens; capite thoraceque punctatis punctulatis-simis, antennis fulvis.

Long. corp. lin. 9, lat. lin. 5.

Syn. Mim. Chinensis. Kirby, *Linn. Trans.*

chrysea. Kollar.

splendens. Schonherr.

stilbophora. Wied.

Corpus glaberrimum, luteo-virens, colore sub luce mutabili, subtus cupreo tincturi. *Caput* supra antice punctis confluentibus rugulosum, postice punctis sparsis conspersum, interque puncta creberrima minutissima, vix sine lente forti conspicua; subtus fulvum. *Antennæ* fulvæ. *Thorax* punctis sparsis punctulis minutissimis interjacentibus ut in capite. *Elytra* subrugosa puncto-striata: striis intermediis per paria ordinatis, interstitiis punctatis et punctulatissimis ut in thorace, &c.; apice gibba.

Habitat in China.

Mus. Dom. Hope.

2. MIMELA CONFUCIUS, Hope.

Supra tota viridis, subtus pallide bronzea, femoribus flavis tibiisque roseo-cupreis.

Long. lin. $9\frac{1}{2}$, lat. lin. $5\frac{1}{2}$.

Caput cum *clypeo* subquadratum, antennæ fulvæ, oculi fusco-cinerei. *Thorax* angulis anticis subacutis, marginibus laterilibus flavescentibus, punctatissimus, punctulis minutissimis ut in capite. *Scutellum* læve subtiliter punctulatum, punctis lente vix distinctis. *Elytra* parum rugosa, punctato-striata, striis intermediis per paria ordinatis, interstitiis creberrime punctatis. *Pygidium* antice aurato-viride, sparsim punctatum, foveolâ transversâ utrinque posita posticeque flavescens. *Corpus* infra fusco-æneum, punctatum, femoribus flavis æneoque colore tinctis. *Tibiæ* unguibusque roseo-cupreis.

Habitat in China.

Mus. Dom. Hope.

3. MIMELA BLUMEI, De Haan.

Supra flavo-bronzea subviridique colore tincta, subtus testacea, tibiis unguibusque piceis.

Long. lin. $6\frac{1}{2}$, lat. lin. 4.

Caput cum *clypeo* subquadratum punctatissimum. *Antennæ* fulvæ. *Oculi* quasi iride aurata pupillaque nigricanti ornati. *Thorax* angulis antice acutis, lateribus flavo marginatis, punctatissimus punctulis minutissimis ut in capite. *Elytra* rugosa, apice gibba, punctato-striata, striis intermediis per paria ordinatis, intersti-

tiis punctatis et punctulatissimis. Margo exterior elytrorum e humeris fere ad apicem viridi colore tincta est. *Corpus* infra testaceum, pectus pilis flavescentibus densum, abdomen concolor pilisque flavis adpersum. *Pedes* validi, femoribus luteis, tibiis unguibusque piceis.

Habitat in Java.

Mus. Dom. Hope.

This insect I received from my friend De Haan of Leyden, by whom it was named *Blumei*.

4. MIMELA LATHAMII, Hope.

Tota supra viridi-inaurata, nitida humeris marginibusque elytrorum igneo colore micantibus.

Long. lin. $8\frac{3}{4}$, lat. lin. $5\frac{1}{4}$.

Affinis *M. lucidula* (De Haan) at postice latior. *Caput* cum *clypeo* subquadratum, glabrum et nitidum. *Antennæ* fulvæ. *Oculi* fusco-cinerei. *Thorax* foveola utrinque ignitâ, punctatissimus punctis lente distinctis. *Elytra* subrugosa, punctato-striata, striis intermediis per paria ordinatis, interstitiis sparsim punctulatis sub lente distinctis, viridi-inaurata, basi, marginibus, tuberculisque ad apicem positis igne micantibus, binæ rugæ inter tubercula et suturam fortiter impressæ (quæ cito in tenuitatem desinunt). *Pygidium* glabrum, fulgore aurato conspicuum et subtiliter punctulatum. *Corpus* infra viridi-bronzeum seu roseo colore tinctum. *Pectus* pilis cinereis adpersum. *Pedes* virides.

Habitat in China et circa Singapore.

Mus. Dom. Hope.

I first obtained this splendid insect from my friend Mr. Latham, after whom I named it. I have since received it from China, where it appears to be an abundant species.

5. MIMELA LUCIDULA, De Haan.

Supra tota viridis, inaurata, marginibus elytrorum igneo colore micantibus, infra roseo-cuprea.

Long. lin. $8\frac{3}{4}$, lat. lin. $4\frac{1}{4}$.

Affinis præcedenti at minor. *Caput* cum *clypeo* subquadratum nitidum. *Antennæ* fulvæ. *Oculi* nigri. *Thorax* foveola viridi utrinque impressa, confertius punctatus. *Elytra* subrugosa striato-punctata striis sub lente parum distinctis, punctis minutissimis ut in capite. Margo externus elytrorum aurea et ignita. *Pygidium* læve et crebre punctatum. *Corpus* infra roseo-cupreum, pedibus viridibus.

Habitat in Japonia.

Mus. Dom. Hope.

This beautiful insect I received from De Haan under the name of *lucidula*: besides the difference of locality, it differs greatly in size and punctation. *Mimela Lathamii* is also a more brilliant insect, and broader considerably at the apex of the elytra, while *lucidula* has a more elongated form, and approaches in some degree to the form of *Euchlora*.

6. MIMELA SPLENDENS, Hope.

Supra tota viridis, nitidissima, subtus testacea tarsis nigro-brunneis.

Long. lin. 7, lat. lin. $3\frac{1}{2}$.

Clypeus rotundatus, antennæ ferrugineæ. *Thorax* subtilissime punctatus, scutellum læve. *Elytra* viridia inaurata, striato-punctata, binis sulcis versus apicem fortiter impressis, tuberculoque rotundato apicali conspicua. *Corpus* subtus testaceum, æneoque colore tinctum, femoribus et tibiis flavescentibus, tarsis unguibusque nigro-brunneis.

Habitat in agro Nepalensi.

Mus. Dom. Hope.

This species was in the collection of Major-General Hardwicke, to whom I am indebted for this and various other *Coleoptera*. It also appears to be by no means uncommon in the Himalaya, as I have seen it abundantly in the boxes sent from that country.

7. MIMELA AURONITENS, Hope.

Supra viridis, nitidissima, subtus picea, tibiis tarsisque viridibus.

Long. lin. $6\frac{2}{7}$, lat. lin. 4.

Antennæ piceæ. *Caput* cum *clypeo* subquadratum, viride, glabrum nitidum. *Oculi* nigri. *Thorax* concolor, angulis anticis subacutis. *Elytra* nitidissima, humeris tuberculisque apicalibus igne micantibus. *Corpus* subtus piceum, pectus pilis cinereis densis tectum. *Abdominis* penultimum segmentum violaceum. *Femora* picea. *Tibiæ* et ungues saturate virides, parum punctatæ et pilosæ.

Habitat in Bengalìa.

Mus. Dom. Hope.

8. MIMELA HORSFIELDII, Hope.

Viridi-inaurata, sumptuosa, thorace aureo-maculato, elytrisque binis igneo-auratis vittis ornatis.

Long. lin. $6\frac{1}{2}$, lat. lin. $3\frac{1}{2}$.

Caput cum *clypeo* subquadratum, punctulatum, antice auratum, postice viride. *Oculi* fusco-cinerei. *Antennæ* fulvæ, capitulo nigricanti. *Thorax* viridis, maculis duabus aureis, fere in medio disci positis; pars *antica*, marginesque laterales confertius punctati; *postica* autem glabra et nitida. *Scutellum* læve. *Elytra* nitidissima, vittis binis igne micantibus, una fere media, altera marginali. *Pygidium* flammeum, convexum et subtiliter punctulatum. *Corpus* infra viride, splendidum et punctatum. *Segmenta* abdominis antice violacea. *Pedes* virides, femoribus posticis incrassatis auroque fulgentibus.

Habitat in agro Nepalesi.

Mus. Dom. Hope.

Mimela sumptuosa? *Zool. Journ.* 5.

This beautiful insect I received from General Hardwicke, and for a long time I imagined it was identical with *M. fastuosa*, Fab. Having purchased at a sale the insect described by Fabricius, I have been able to compare the insects, and find the present species is unknown; it is named, therefore, in honour of Dr. Horsfield, who has so ably written on the *Lepidoptera* of Java.

9. MIMELA LEEI, *Swederus et Olivier.*

M. viridi-ænea, nitida, elytris vittis duabus aureis. *Fab.*

Long. lin. 8, lat. lin. 4½.

Scarabæus Leei scutellatus muticus cœruleus nitissimus, capitis disco, thorace fascia interrupta elytrisque vittis quatuor aureis.—*Swederus, Act. Holm.* 1787, 188. 4. *Oliv. Ins.* 1. 5. 30. t. 8. f. 87.

Mel. fastuosa. *Fab. Ent. Syst.* ii. 168. 57.; *Syst. El.* ii. 173.

Habitat in India. Dom. Lee.

M. viridi-inaurata, thorace auro maculato, elytris vittis duabus aureis. Statura *Mel. vitis*, at major. *Clypeus* rotundatus. *Caput thoraxque* viridia inaurata, maculis aureis. *Elytra* viridi-cœrulea, inaurata, vittis duabus aureis. *Corpus* subtus viridi-cœruleum nitidum. *Oliv. vid. Sp.* 32. *Melolontha.*

Viridi-inaurata. *Caput* cum *clypeo* subquadratum viridi-auratum, nitidum, subtiliter parce punctulatum. *Clypeus* brevis, transversus, concolor, confertius punctatus, margine reflexo integerrimo. *Antennæ* fusco-ferrugineæ. *Oculi* magni, atri. *Thorax* antice emarginatus angulis acutis, lateribus rotundatus, punctatus, supra viridis, macula magna aurea, utrinque dorso posita, haud ad latera extensa, aut in medio disci conjuncta. *Scutellum* breve, violaceum, postice fere rotundatum, læve, antice parce punctatum. *Elytra* apice truncata, punctato-striata, viridi-

inaurata, splendida, suturâ violaceâ, binis vittis viridi-cyaneis, binisque aliis aureis, igne micantibus, ornata. Ad apicem rugæ quatuor (in singulo duæ,) fortiter impressæ. *Podex* lato-triangularis, convexus, viridique-auratus et punctatissimus. *Corpus* infra viridi-cæruleum.

I have described this species minutely from the identical specimen which was in Lee's cabinet, described by Fabricius, as I formerly confounded a Nepal species with it, which is very distinct.

10. MIMELA CHRYSOPRASUS, Hope.

Totum corpus supra viride, femoribus flavescentibus.

Long. lin. 8, lat. lin. 4.

Caput cum *clypeo* subquadratum. *Oculi* fusco-cinerei. *Antennæ* testaceæ. *Thorax* nitidus, punctatissimus. *Elytra* pallide virescentia, et aurato splendore nitentia, punctato-striata, striis intermediis per paria ordinatis, interstitiis sparsim punctulatis. *Pygidium* viride. *Pectus* infra concolor, flaveolis capillis adspersum. *Segmenta* abdominis flavescentia, nitida. *Femora* aureo-testacea. *Tibiæ* antice concolores, posticæ virides, tarsis unguibusque atro-virescentibus.

Habitat in India, circa Singapore.

Mus. Dom. Hope.

11. MIMELA BICOLOR, Hope.

Supra testacea, subtus viridis.

Long. lin. 6, lat. lin. 3.

Clypeus rotundatus, testaceus aureo colore tinctus, subtilissime punctatus. *Elytra* striato-punctata lævia. *Corpus* subtus nigro-viride, unguibus solummodo testaceis.

Habitat in agro Nepalense.

Mus. Dom. Hardwicke.

12. MIMELA SIMILIS, Hope.

Præcedenti affinis. Testacea, elytris pallidioribus tarsisque virescentibus.

Long. lin. $5\frac{1}{2}$, lat. lin. 3.

Clypeus rotundatus, oculis nigris. *Antennæ* testaceæ, capitulo nigricante. *Thorax* rubro-testaceus, aureoque colore tinctus. *Elytra* pallide testacea, lævia, striato-punctata. *Corpus* subtus testaceum, pectore æneo-nigricante tarsisque viridi-auratis. Variat quibusdam segmentis abdominis æneo-piceis.

Habitat in agro Nepalensi.

Mus. Dom. Hardwicke.

Subgenus APROSTERNA, Hope.

The type of which is *Mimela nigricans*, Kirby.

APROSTERNA NIGRICANS.

M. nigro-picea, capite thoraceque-punctatis, antennis brunneis.

Long. lin. 7.

Descr.—*Corpus* oblongum, glabrum, nitidum nigro-piceum. *Caput* æneo tinctum, punctatum, punctulis haud interpositis ut in *M. Chinense*; puncta antica confluent. *Antennæ* brunneæ. *Prothorax* æneo tinctus, punctatus, punctulis haud interpositis. *Elytra* punctata, punctis quibusdam sparsis et aliis seriatim ordinatis, seriebus per paria dispositis. Punctula itidem minutissima inter hæc puncta interposita. In aliis *M. Chinensem* exactissime refert hæc species, sed minor est.

Habitat in China.

Mus. Dom. Hope.

DESCRIPTION OF THE FIGURES.

PLATE X. Fig. 7.

Mimela Chinensis, and its details.

- 7 a. Labrum. 7 b. Mandible. 7 c. Mandible seen in front. 7 e. Maxilla.
 7 f. Instrumenta labialia. 7 g. Antenna. 7 h. Head and prothorax
 in profile. 7 i. Metasternum and posterior trochanter. 7 k. Fore leg.
 7 l. Middle leg. 7 m. Posterior leg.

XXIV. *Note upon the British Genera Acentria, Acentropus, and Zancle.* By J. O. WESTWOOD, F.L.S., &c.

[Read July 7, 1834.]

IN Mr. Stephens's Catalogue of British Insects, *Mandibulata*, p. 316, we find the following entry :

“ Genus 28. (549), *Acentria, mihi*.

Phryganea, p. Olivier?

“ 3562. 1 : *nivosa*.

Ph. nivea, Olivier? Latr. t. xiii. 93?”

This genus is placed in the order *Neuroptera*, and family *Perlidae*.

In Mr. Curtis's Guide, col. 137, the same genus is introduced, but it is inserted at the end of the *Trichoptera*, and is numbered 762.